Page 1 of 7



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/544,517

DATE: 03/14/2002 TIME: 14:13:00

Input Set : A:\410.app

Output Set: N:\CRF3\03142002\I544517.raw

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4 <110> APPLICANT: Luche, Ralf M.
         Wei, Bo
7 <120> TITLE OF INVENTION: DSP-4 DUAL-SPECIFICITY PHOSPHATASE
10 <130> FILE REFERENCE: 200125.410
12 <140> CURRENT APPLICATION NUMBER: US 09/544,517
13 <141> CURRENT FILING DATE: 2000-04-06
15 <160> NUMBER OF SEQ ID NOS: 21
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1087
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapien
24 <400> SEQUENCE: 1
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                                                                           60
26 cggttacctg gatgggcgaa cacctctgag gctggctttg ttacctgggc aataagggac
                                                                          120
27 tagcagttca gccgttttct atgcctgctg gatttgtttg tatttgttcc cagccactgc
                                                                          180
28 tcatgtaatg tactccctta accaggaaat taaagcattc tcccggaata atctcaggaa
                                                                          240
29 gcaatgcacc agggtgacaa cgctaactgg aaagaaaatt atagaaacat ggaaagatgc
                                                                          300
30 cagaattcat gttgtggaag aagtagagcc gagcagtggg ggtggttgtg gttatgtgca
                                                                           360
31 ggaccttage teggacetge aagttggegt tattaageea tggttgetee tagggteaca
                                                                           420
32 agatgctgct catgatttgg atacactgaa aaagaataag gtgactcata ttcttaatgt
                                                                           480
33 tgcatatgga gttgaaaatg ctttcctcag tgactttaca tataagagca tttctatatt
                                                                           540
34 ggatctgcct gaaaccaaca tectgtetta titteeagaa tgttttgaat ttattgaaga
                                                                           600
35 agcaaaaaga aaagatggag tggttcttgt tcattgtaat gcaggcgttt ccagggctgc
                                                                           660
36 tgcaattgta ataggtttcc tgatgaattc tgaacaaacc tcatttacca gtgctttttc
                                                                           720
37 tttggtgaaa aatgcaagac cttccatatg tccaaattct ggcttcatgg agcagcttcg
                                                                           780
38 tacatatcaa gagggcaaag aaagcaataa gtgtgacaga atacaggaga acagttcatg
                                                                           840
39 agttgcattg tagcagacaa tggacaactg tagtttctga attgacttct atagccatct
                                                                           900
40 tttccctttt ttggagagta gactagcaaa actccctttt ttctcttgcc ttttttatgc
                                                                           960
41 ataaatggag gtcaatctga ttgtcctgac ctactgtata agtaaatttc aaatgtcatt
                                                                          1020
42 actttetett tgttattata atgtgtgatt aaatgetttt ttaaattget aagggaaaat
                                                                          1080
                                                                          1087
 43 aaaaaaa
 45 <210> SEQ ID NO: 2
 46 <211> LENGTH: 217
 47 <212> TYPE: PRT
 48 <213> ORGANISM: Homo sapien
 50 <400> SEQUENCE: 2
 51 Met Tyr Ser Leu Asn Gln Glu Ile Lys Ala Phe Ser Arg Asn Asn Leu
                                         10
                     5
 53 Arg Lys Gln Cys Thr Arg Val Thr Thr Leu Thr Gly Lys Lys Ile Ile
                20
 55 Glu Thr Trp Lys Asp Ala Arg Ile His Val Val Glu Glu Val Glu Pro
```

40

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56

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Input Set : A:\410.app

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57 Ser Ser Gly Gly Cys Gly Tyr Val Gln Asp Leu Ser Ser Asp Leu
59 Gln Val Gly Val Ile Lys Pro Trp Leu Leu Gly Ser Gln Asp Ala
61 Ala His Asp Leu Asp Thr Leu Lys Lys Asn Lys Val Thr His Ile Leu
                                       90
                   85
63 Asn Val Ala Tyr Gly Val Glu Asn Ala Phe Leu Ser Asp Phe Thr Tyr
                                                       110
                                   105
               100
65 Lys Ser Ile Ser Ile Leu Asp Leu Pro Glu Thr Asn Ile Leu Ser Tyr
                               120
67 Phe Pro Glu Cys Phe Glu Phe Ile Glu Glu Ala Lys Arg Lys Asp Gly
                           135
       130
69 Val Val Leu Val His Cys Asn Ala Gly Val Ser Arg Ala Ala Ala Ile
                       150
71 Val Ile Gly Phe Leu Met Asn Ser Glu Gln Thr Ser Phe Thr Ser Ala
                                        170
                   165
73 Phe Ser Leu Val Lys Asn Ala Arg Pro Ser Ile Cys Pro Asn Ser Gly
                                   185
               180
75 Phe Met Glu Gln Leu Arg Thr Tyr Gln Glu Gly Lys Glu Ser Asn Lys
                               200
          195
77 Cys Asp Arg Ile Gln Glu Asn Ser Ser
                           215
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80 <210> SEQ ID NO: 3
81 <211> LENGTH: 14
82 <212> TYPE: PRT
83 <213> ORGANISM: Homo sapien
85 <400> SEQUENCE: 3
86 Val His Cys Asn Ala Gly Val Ser Arg Ala Ala Ile Val
87 1
 89 <210> SEQ ID NO: 4
 90 <211> LENGTH: 23
 91 <212> TYPE: PRT
 92 <213> ORGANISM: Homo sapien
 94 <400> SEQUENCE: 4
 95 Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Gly Thr
                    5
 97 Asn Ile Leu Ala Tyr Leu Met
               20
 100 <210> SEQ ID NO: 5
 101 <211> LENGTH: 27
 102 <212> TYPE: DNA
 103 <213> ORGANISM: Homo sapien
 105 <400> SEQUENCE: 5
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 106 gcataaaaaa ggcaagagaa aaaaggg
 108 <210> SEQ ID NO: 6
 109 <211> LENGTH: 24
 110 <212> TYPE: DNA
 111 <213> ORGANISM: Homo sapien
 113 <400> SEQUENCE: 6
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RAW SEQUENCE LISTING

DATE: 03/14/2002

PATENT APPLICATION: US/09/544,517

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Input Set : A:\410.app

	24
114 cacacttatt gctttctttg ccct	24
116 <210> SEQ ID NO: 7	
117 <211> LENGTH: 25	
118 <212> TYPE: DNA	
119 <213> ORGANISM: Homo sapien	
121 <400> SEQUENCE: 7	25
122 gcactggtaa atgaggtttg ttcag	•
124 <210> SEQ ID NO: 8	
125 <211> LENGTH: 18 126 <212> TYPE: DNA	
127 <213> ORGANISM: Homo sapien	
129 <400> SEQUENCE: 8	18
130 agccctggaa acgcctgc 132 <210> SEQ ID NO: 9	
132 <210> SEQ 1D NO: 9 133 <211> LENGTH: 25	
133 <211> LENGTH: 25 134 <212> TYPE: DNA	
134 <212> TIPE: DNA 135 <213> ORGANISM: Homo sapien	
135 <213> ORGANISM: HOMO SAPIEM 137 <400> SEQUENCE: 9	
138 ctgaacaaac ctcatttacc agtgc	.25
140 <210> SEQ ID NO: 10	
140 <210 SEQ 10 NO. 10 141 <211> LENGTH: 18	
141 <211> LENGTH. 10 142 <212> TYPE: DNA	
142 <212> TIPE. DNA 143 <213> ORGANISM: Homo sapien	
145 <400> SEQUENCE: 10	
146 gcaggcgttt ccagggct	18
148 <210> SEQ ID NO: 11	
149 <211> LENGTH: 25	
150 <212> TYPE: DNA	
151 <213> ORGANISM: Homo sapien	
153 <400> SEQUENCE: 11	
154 gagggcaaag aaagcaataa gtgtg	25
156 <210> SEQ ID NO: 12	
157 <211> LENGTH: 27	
158 <212> TYPE: DNA	
159 <213> ORGANISM: Homo sapien	
161 <400> SEQUENCE: 12	
162 gtcacactta ttgctttctt tgccctc	27
164 <210> SEQ ID NO: 13	
165 <211> LENGTH: 20	
166 <212> TYPE: DNA	
167 <213> ORGANISM: Homo sapien	
169 <400> SEQUENCE: 13	
170 gcaggcgttt ccagggctgc	20
172 <210> SEQ ID NO: 14	
173 <211> LENGTH: 170	
174 <212> TYPE: PRT	
175 <213> ORGANISM: Homo sapien	
177 <400> SEOUENCE: 14	
178 Ser Asp Leu Asp Arg Asp Pro Asn Ser Ala Thr Asp Ser Asp Gly Ser	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/544,517

DATE: 03/14/2002
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Input Set : A:\410.app

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10
180 Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile Leu Pro Phe
                            25
                20
182 Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
            35
184 Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
                            55
186 Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
                        70
187 65
188 Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser
                                        90
                    85
190 Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
                                    105
                100
191
192 Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
                                120
            115
194 Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
                            135
196 Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
                                            155
                        150
197 145
198 Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
                    165
199
201 <210> SEQ ID NO: 15
202 <211> LENGTH: 168
203 <212> TYPE: PRT
204 <213> ORGANISM: Homo sapien
206 <400> SEQUENCE: 15
207 Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val
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208 1
209 Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
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                20
211 Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
                                                     45
             35
213 Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
        50
 215 Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
                         70
 217 Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
 219 Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
                                     105
                100
 221 Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
                                                     125
                                 120
             115
 223 Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys
                             135
       130
 225 Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe
                                             155
                        150
 227 Glu Arg Thr Leu Gly Leu Ser Ser
                     165
 230 <210> SEQ ID NO: 16
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 RAW SEQUENCE LISTING
 DATE: 03/14/2002

 PATENT APPLICATION: US/09/544,517
 TIME: 14:13:00

Input Set : A:\410.app

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232 <212> TYPE: PRT
233 <213> ORGANISM: Homo sapien
235 <400> SEQUENCE: 16
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238 Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile Leu Pro
               20
240 His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp Leu Met
                                40
242 Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser Cys Pro
                            55
244 Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro Ile Asn
245 65
246 Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser Ile Glu
                                        90
                    85
248 Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val His Cys
                                    105
250 Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr Ile Met
                                120
          115
252 Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val Lys Asp
                            135
253 130
254 Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln Leu Leu
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                       150
256 Glu Tyr Glu Arg Thr Leu Lys Leu Leu Ala
259 <210> SEQ ID NO: 17
260 <211> LENGTH: 168
261 <212> TYPE: PRT
262 <213> ORGANISM: Homo sapien
264 <400> SEQUENCE: 17
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267 Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
                                    25
269 Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln Gly Leu
                                40
           35
271 Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser Cys Pro
                            55
273 Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val Glu Asp
                        70
275 Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile Ser Phe
                                        90
277 Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His Cys Gln
                100
279 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Ile Gln
                                120
281 Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys Gln Arg
                            135
282
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/544,517

DATE: 03/14/2002 TIME: 14:13:01

Input Set : A:\410.app
Output Set: N:\CRF3\03142002\I544517.raw